DETAILED ACTION

1.   This office action is in response to the amendment filed 21 November 2011.
Claims 1, 3-12 and 14-22 are pending.

Response to Arguments

2.   Applicant's arguments filed with respect to claims 21 and 22 have been fully
considered but they are not persuasive.

        On pages 13-18 of the response the Applicant argues against the combination of
the references used for claims 1, 3-12 and 14-22 in the previous rejection, however, in
their argument the Applicant only argues against the references individually (page 15 of
the response) and with respect to the amendment made to claims 1 and 12 (pages 16
and 17 of the response). As explained in the office action below, the amendment to
claims 1 and 12 have overcome the prior art and are indicated allowable, however,
claims 21 and 22 have not been amended and the Applicant has failed to argue against
the references with respect to these claims. Therefore, the rejection of claims 21 and
22 is maintained.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

4.   Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horiki (US 2002/0140667) in view of Averbuch et al. (US 2003/0081836).

Regarding claim 21, Horiki discloses a system for inputting operation system (OS) commands to a data processing device comprising:

(a) a video camera capturing images of a viewing space (Figure 6a, 611); and

(b) a processor (Figure 7, 701/702/703) configured to:

i) detect a predetermined object in one or more images obtained by the camera using an algorithm (Paragraph [0131]);

ii) extract one or more image analysis parameters of the object in the one or more images obtained by the camera (Paragraph [0132]); and

iii) for each of one or more motion detection tests:

(I) applying the motion detection test to image analysis parameters extracted during a recent time window (Paragraphs [0136]-[0138]); and

(II) executing an operating system command associated with the motion detection test if the motion detection test succeeds (Paragraphs [0134] and [0136]-[0138]).

Further, paragraph [0151] of Horiki discloses that the above listed elements can be a program in the portable communications terminal for carrying out the method as listed above.

Horiki fails to explicitly teach of using a segmentation algorithm for detecting the predetermined object.

Averbuch et al. disclose of detecting a predetermined object in one or more images using a segmentation algorithm (Paragraph [0075]-[0077]).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the segmentation algorithm taught by Averbuch et al. to detect the predetermined object in Horiki in order to use an algorithm that is robust, stable, and does not require any prior knowledge of the content of the input video images or sequences (See Averbuch et al., paragraph [0064]).

Regarding claim 22, this claim is rejected under the same rationale as claim 21 plus see paragraph [0151] of Horiki.

Allowable Subject Matter

5.   Claims 1, 3-12 and 14-20 are allowed.

6.   The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for indicating claims 1, 3-12 and 14-20 allowable is the inclusion of the limitations "*wherein the segmentation algorithm comprises steps of: (A) for k=l to N, where N is a predetermined integer: binarizinq pixels in the image into a set A_k of pixels having an intensity below a kth predetermined intensity and a set B_k of*

pixels having an intensity above the kth predetermined intensity, the kth predetermined intensity being greater than the (k-1)th intensity, for k=2 to N; identifying contiguous sets of pixels in the set A_k and identifying contiguous sets of pixels in the set B_k

(B) identifying one or more stable sets of pixels in the image, a stable set of pixels being a contiguous set of pixels present in each of the sets A_k for k=M to N, where M is a predetermined constant, or a contiguous set of pixels present in each of the sets B_k for k=M to N and (C) applying an object recognition procedure on the stable sets to identify the predetermined object among the stable sets" which, in combination with the other recited features, are not found singularly or in combination within the prior art.

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN SHERMAN whose telephone number is (571)272-2941. The examiner can normally be reached on M-F, 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen G Sherman/
Examiner, Art Unit 2629

5 December 2011